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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,659	10/23/2003	Howard Martin Sandler	85773-422	5883

26123 7590 12/28/2006  
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CANADA

EXAMINER
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SEDIGHIAN, REZA

ART UNIT	PAPER NUMBER
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2613

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/28/2006	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/690,659

Applicant(s)

SANDLER ET AL.

Examiner

M. R. Sedighian

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 23-32, 39-41, 46 and 47 is/are rejected.
- 7) ☒ Claim(s) 5-22, 33-38 and 42-45 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/23/03</u> | 6) <input type="checkbox"/> Other: _____  |

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 23-32, 39-41, and 46 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishikawa et al. (US Patent No: 5,815,294).

Regarding claims 1, 26, and 46, Ishikawa teaches a control system for use in compensating for temperature-induced dispersion drift of an optical path (col. 5, lines 35-43, 66-67, col. 6, lines 1-3 and 102, fig. 35), comprising: a) an input (110, fig. 35) adapted to obtain temperature data associated with a portion of interest of the optical path (col. 20, lines 1-25); b) a control module (106, fig. 35) adapted to determine control information on the basis of the temperature data associated with the portion of interest of the optical path (col. 17, lines 13-20, col. 20, lines 60-63); c) an output adapted to provide a control signal to a dispersion compensator (101, fig. 35), the control signal causing the dispersion compensator to induce a dispersive effect in a signal that travels the optical path (102, fig. 35), the dispersive effect being related to the control information (col. 16, lines 60-67, col. 17, lines 1-6, col. 19, lines 35-39, col. 20, lines 61-63). As to claim 26, Ishikawa teaches the dispersion compensation (101, figs. 16, 35) having an operating condition (col. 16, lines 39-44) that is controllable via a control signal (105, fig. 16), wherein control of the operating condition causes the dispersion compensation module to induce a dispersive effect (col. 16, lines 45-54) in a signal that travels the optical path (102, figs. 16, 35).

Regarding claim 2, Ishikawa teaches the control module being adapted to determine a desired dispersion shift on the basis of temperature data associated with the portion of interest of

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the optical path (col. 19, lines 35-39), determining the control information on the basis of the desired dispersion shift (col. 20, lines 61-63).

Regarding claim 3, Ishikawa teaches the control information is representative of a temperature change to be applied (col. 19, lines 35-39) to a dispersion compensation module (101, fig. 35) disposed in the optical path (102, fig. 35).

Regarding claim 4, Ishikawa teaches the dispersive effect is a temperature-induced change in dispersion of the dispersion compensation module relative to a nominal dispersion of the dispersion compensation module in the absence of the control information (col. 17, lines 13-20, col. 20, lines 5-7).

Regarding claim 27, Ishikawa teaches the dispersion compensator is a dispersion compensation module (101, figs. 16, 35).

Regarding claim 28, Ishikawa teaches the dispersion compensator module (101, fig. 35) is placed upstream from the portion of interest of the optical path (102, fig. 35).

Regarding claim 29, Ishikawa teaches the dispersion compensator module (101, fig. 17) is placed downstream from the portion of interest of the optical path (102, fig. 17).

Regarding claim 30, Ishikawa teaches the dispersion induced by the dispersion compensation module spans a band of optical wavelengths (col. 5, lines 30-31 and fig. 23).

Regarding claim 31-32, Ishikawa teaches the band of optical wavelengths spans at least 30 or 90 nanometers (figs. 23, 24).

Regarding claims 23 and 39, Ishikawa teaches a database comprising a plurality of entries containing potential values of the control information, the database being indexed in

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accordance with potential values of the temperature data associated with the portion of interest of the optical path (col. 13, lines 15-17, col. 20, lines 27-33).

Regarding claims 24-25 and 40, Ishikawa teaches the control module being adapted to extract from the database the contents of the entry indexed by the temperature data associated with the portion of interest of the optical path (col. 20, lines 27-33).

Regarding claim 41, Ishikawa teaches the dispersion compensator is pulse shaping unit (col. 18, lines 19-30).

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa et al. (US Patent No: 5,815,294) in view of Takahara et al. (US Patent Application Publication No: 2003/0223760 A1).

Regarding claim 47, Ishikawa discloses a method of compensating for temperature-induced dispersion drift of an optical path (col. 19, lines 27-39 and col. 20, lines 1-30), as discussed above in claim 1. Ishikawa differs from the claimed invention in that Ishikawa does not disclose a computer-readable medium tangibly embodying a program of instructions executable by a computer to perform the method of compensating for the temperature induced dispersion drift of the optical path. Takahara discloses a method of compensating for temperature-induced dispersion drift of an optical path (page 1, paragraph 0010, page 3,

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paragraphs 0061, 0062 and 1, fig. 4), wherein a computer-readable medium tangibly embodying a program of instructions executable by a computer to perform the method of compensating for the temperature induced dispersion drift of the optical path (page 5, paragraph 0127, page 11, paragraph 0206). As it is taught by Takahara, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate a computer-readable medium embodying a program of instructions executable by a computer, such as the one of Takahara, to perform the method of compensation of temperature-induced dispersion-drift of the optical path for the optical signal transmission and dispersion compensation system of Ishikawa to optimize the transmission conditions.

5. Claims 5-22, 33-38, and 42-45 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. R. Sedighian whose telephone number is (571) 272-3034. The examiner can normally be reached on M-F (from 9 AM to 5 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
M. R. SEDIGHIAN  
PRIMARY EXAMINER